

**DRAFT**

**NAVY TRAINING SYSTEM PLAN**

**FOR THE**

**AVIATION GAS FREE**

**ENGINEERING PROGRAM**

**N88-NTSP-A-50-8623B/D**

**AUGUST 1999**

## **AVIATION GAS FREE ENGINEERING PROGRAM**

### **EXECUTIVE SUMMARY**

This Navy Training System Plan addresses manpower, personnel, and training requirements associated with the Aviation Gas Free Engineering (AVGFE) Program. The purpose of this program is to ensure the safety of personnel working in and around fuel cells and tanks for aircraft and associated support equipment. The AVGFE Program is in the Production, Deployment, and Operational Support Phase of the Weapon System Acquisition Process.

The AVGFE actions are performed at the organizational, intermediate, and depot levels of maintenance per the Office of the Chief of Naval Operations Instruction (OPNAVINST) 4790.2G, Naval Aviation Maintenance Program, and the Aircraft Fuel Cell Manual NAVAIR 01-1A-35. To gain initial certification, a Navy or Marine Corps AVGFE technician must be a Quality Assurance Representative or a Collateral Duty Quality Assurance Representative. However, once certified as an AVGFE technician, certification in the same command may be retained, even if the individual no longer performs QA duties. Depot AVGFE technicians may be any trained and certified employee designated by management.

The Aviation Gas Free Engineering Course, C-600-3000, provides hands-on instruction on the Navy Wing Tank Entry Gas Monitor Set (PGM-50) P/N 009-3001-01N, including operation and calibration of gas detecting equipment. It is taught at five locations:

- Naval Air Maintenance Training Group Detachment (NAMTRAGRU DET) Maintenance Training Unit (MTU) 1038 Naval Air Station (NAS) Lemoore, California
- MTU 1007 NAS Oceana, Virginia
- MTU 1083 NAS Whidbey Island, Washington
- MTU 1036 NAS North Island, California
- MTU 1037 NAS Jacksonville, Florida

There are no specific Navy Enlisted Classifications or Military Occupational Specialties associated with AVGFE. Upon completion of AVGFE Course C-600-3000 and required On-the-Job Training (OJT) as specified in OPNAVINST 4790.2G, certification remains in effect for one year from the Commanding Officer's signature of certification. Onboard training is provided to AVGFE trainees by a qualified AVGFE technician through OJT. They learn to identify individual characteristics for each type of fuel cell on every type/model/series aircraft for which they qualify, and to determine if fuel cells are safe from fire, explosive vapors, toxic materials, and oxygen deficiency or enrichment. Annual recertification will be based on requirements outlined in the Aircraft Fuel Cell Manual, NAVAIR-01-1A-35. The AVGFE Program requires no increase to manpower at any level of maintenance.

**AVIATION GAS FREE ENGINEERING PROGRAM**

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**LIST OF ACRONYMS**

AFB	Air Force Base
AIMD	Aircraft Intermediate Maintenance Department
AVGFE	Aviation Gas Free Engineering
CDQAR	Collateral Duty Quality Assurance Representative
CFY	Current Fiscal Year
CIN	Course Identification Number
COMNAVAIRESFOR	Commander, Naval Air Reserve Force
COMNAVAIRLANT	Commander, Naval Air Force, U.S Atlantic Fleet
COMNAVAIRPAC	Commander, Naval Air Force, U.S. Pacific Fleet
CV	Aircraft Carrier
CVN	Aircraft Carrier, Nuclear
EMMMF	Expanded Mission Mobile Maintenance Facility
FY	Fiscal Year
HC	Helicopter Combat Support Squadron
IMA	Intermediate Maintenance Activity
JRB	Joint Reserve Base
LEL	Lower Explosive Limit
LHA	Landing Ship, Helicopter Assault
LHD	Multi-Purpose Amphibious Assault Ship
MAG	Marine Aircraft Group
MALS	Marine Aviation Logistics Squadron
MAW	Marine Air Wing
MCAS	Marine Corps Air Station
MCCDC	Marine Corps Combat Development Command
MOS	Military Occupational Specialty
MPT	Manpower, Personnel, and Training
MTIP	Maintenance Training Improvement Program
MTU	Maintenance Training Unit
NA	Not Applicable

**AVIATION GAS FREE ENGINEERING PROGRAM**

**LIST OF ACRONYMS**

NAF	Naval Air Facility
NAMP	Naval Aviation Maintenance Program
NAMTG or NAMTRAGRU	Naval Air Maintenance Training Group
NAMTRAGRU DET	Naval Air Maintenance Training Group Detachment
NAS	Naval Air Station
NATEC	Naval Air Technical Data and Engineering Service Command
NAVAIRSYSCOM or NAVAIR	Naval Air Systems Command
NAVAVNDEPOT	Naval Aviation Depot
NAWCAD	Naval Air Warfare Center Aircraft Division
NS	Naval Station
NTSP	Navy Training System Plan
OLSP	Operational Logistics Support Plan
OMA	Organizational Maintenance Activity
OMD	Operations Maintenance Division
OPNAV	Office of the Chief of Naval Operations
OPNAVINST	Office of the Chief of Naval Operations Instruction
PCU	Pre-Commissioning Unit
PFY	Previous Fiscal Year
PPM	Parts Per Million
QA	Quality Assurance
QAR	Quality Assurance Representative
SAR	Search and Rescue
SOMS	Station Operations Maintenance Squadron
TFS	Total Force Structure
TTE	Technical Training Equipment
ULSS	User's Logistics Support Summary
USMC	United States Marine Corps
USN	United States Navy
VMAT	Fixed Wing Marine Fighter Training Squadron
VMGR	Marine Transportation Squadron
VMR	Fixed Wing Marine Reconnaissance Squadron

**AVIATION GAS FREE ENGINEERING PROGRAM**

**LIST OF ACRONYMS**

VQ

Fleet Air Reconnaissance Squadron

## **AVIATION GAS FREE ENGINEERING PROGRAM**

### **PREFACE**

This Draft Navy Training System Plan (NTSP) for the Aviation Gas Free Engineering (AVGFE) Program was prepared to update the Gastech Model 1314 PPM/LEL Gas Indicator Navy Training Plan, A-50-8623A/P, dated March 1995. The AVGFE Program NTSP complies with guidelines set forth in the Navy Training Requirement Documentation Manual and reflects the latest information available. Specifically, this NTSP outlines the AVGFE Program, vice an individual breakdown of existing or the addition of new AVGFE equipment. Specific changes to this NTSP are as follows:

- Introduction of the PGM-50, Navy Wing Tank Entry Gas Monitor Set
- Training location changed
- Delivery schedule updated
- Updated logistics support items
- Updated points of contact

## PART I - TECHNICAL PROGRAM DATA

### A. NOMENCLATURE-TITLE-PROGRAM

1. **Nomenclature-Title-Acronym.** Aviation Gas Free Engineering (AVGFE) Program
2. **Program Element.** Not Applicable (NA)

### B. SECURITY CLASSIFICATION

1. **System Characteristics** ..... Unclassified
2. **Capabilities** ..... Unclassified
3. **Functions**..... Unclassified

### C. MANPOWER, PERSONNEL, AND TRAINING PRINCIPALS

OPNAV Principal Official (OPO) Program Sponsor..... CNO (N881B)

OPO Resource Sponsor ..... CNO (N881B)

Marine Corps Program Sponsor..... CMC (ASL-33)

Developing Agency..... NAVAIRSYSCOM (PMA260)

Training Agency ..... CINCLANTFLT  
CINCPACFLT  
CNET  
COMNAVAIRESFOR

Training Support Agency..... NAVAIRSYSCOM (PMA205)

Manpower and Personnel Mission Sponsor ..... CNO (N12)  
NAVPERSCOM (PERS-4, PERS-404)

Director of Naval Training ..... CNO (N7)

Commander, Reserve Program Manager ..... COMNAVAIRESFOR  
(Code N4213)

Marine Corps Combat Development Command  
Manpower Management ..... TFS Division



## **D. SYSTEM DESCRIPTION**

**1. Operational Uses.** The objective of the AVGFE Program is to ensure that a safe environment is maintained when working on aeronautical equipment fuel cells and tanks. Numerous maintenance actions within Navy and Marine Corps aviation communities involve entering into, or working on potentially hazardous, confined spaces. Under the AVGFE Program, trained and qualified personnel ensure such entries are conducted safely. The Gastech Model 1314 Parts Per Million/Lower Explosive Limit (PPM/LEL) Gas Indicator, with oxygen level measuring capabilities, is currently the principal tester used within the AVGFE Program to detect concentrations of combustible gas or vapor and oxygen content. However, it is scheduled for replacement by the close of Fiscal Year (FY) 99 with the PGM-50 (P/N 009-3001-01N) Navy Wing Tank Entry Gas Monitor Set, hereafter referred to as the PGM-50.

The AVGFE Program requires each Navy and Marine Corps activity to develop and implement procedures for rescuing incapacitated entrants from fuel cells, preventing unauthorized persons from attempting a rescue, and summoning emergency medical services. These procedures are documented in a plan. When personnel are entering and working inside fuel cells, this written plan is posted in the immediate area. All personnel involved are instructed in the proper procedures to follow during rescue efforts. Although more stringent requirements may be added which are appropriate for specific situations, as a minimum, the requirements are incorporated in the activity's plan. Refer to the Aircraft Fuel Cell Manual, NAVAIR 01-1A-35, for additional requirements and implementation guidelines.

### **2. Foreign Military Sales. NA**

**E. DEVELOPMENTAL TEST AND OPERATIONAL TEST.** Technical Evaluation on the PGM-50 was completed at the Naval Air Warfare Center Aircraft Division (NAWCAD) Support Equipment and Technical Evaluation Branch, Patuxent River, Maryland, on 9 March 1995. Operational Evaluation is not required for the PGM-50.

**F. AIRCRAFT AND/OR EQUIPMENT/SYSTEM/SUBSYSTEM REPLACED.** The Gastech Model 1314 PPM/LEL Gas Indicator with Oxygen Section is scheduled for replacement by the PGM-50. Delivery and replacement began in June 1998, and was completed on November 1998. The Gastech Model 1314 will continue to be used until all assets are exhausted.

## **G. DESCRIPTION OF NEW DEVELOPMENT**

**1. Functional Description.** The PGM-50 is a programmable battery powered (microprocessor controlled) unit designed to provide continuous exposure monitoring of toxic gases, oxygen, and combustible gases for personnel working in hazardous environments. The PGM-50 has no special calibration requirements. The unit has a self-test, self-adjust feature that automatically adjusts the Gas Monitor Unit during operation.

**2. Physical Description.** The PGM-50 is housed in a durable, shock-resistant, water-resistant case. Physical characteristics are as follows:

LENGTH (INCHES)	WIDTH (INCHES)	HEIGHT (INCHES)	WEIGHT (OUNCES)
4.65	3.00	1.90	16.00

**3. New Development Introduction.** The PGM-50 has been phased into Navy and Marine Corps aviation communities as new production units, replacing the Gastech Model 1314.

**4. Significant Interfaces.** NA

**5. New Features, Configurations, or Material.** NA

## H. CONCEPTS

**1. Operational Concept.** AVGFE equipment is operated by certified AVGFE technicians. In order to gain initial certification, a Navy or Marine Corps AVGFE technician candidate must be a Quality Assurance Representative (QAR) or a Collateral Duty Quality Assurance Representative (CDQAR). However, once certified as an AVGFE technician, certification in the same command may be retained, even if the individual no longer performs Quality Assurance (QA) duties.

**2. Maintenance Concept.** The AVGFE Program is an extension of the Confined Space Entry Program. The Naval Air Systems Command (COMNAVAIRSYSCOM) manages the AVGFE Program per the Aircraft Fuel Cell Manual, NAVAIR 01-1A-35. This manual defines aviation requirements, identifies certification procedures, and shall be used as the governing document for the AVGFE Program, both ashore and afloat.

**a. Organizational.** Aeronautical fuel cells and tanks are analyzed by an AVGFE technician to certify that the area being measured is free of all combustible gases or vapors, and has an acceptable oxygen level to allow for safe entry by maintenance personnel. Organizational maintenance activities without a sufficient demand for an AVGFE technician use the AVGFE services of the supporting Intermediate Maintenance Activity (IMA). Insufficient demand is defined as less than three AVGFE requirements in a six-month period.

**(1) Preventive Maintenance.** Pre-operational checks are conducted by user personnel during daily self-test features of the PGM-50.

**(2) Corrective Maintenance.** Corrective maintenance on the PGM-50 is performed by the IMA (Work Center 670), and consists of adjustment, corrosion control, fault

isolation to the faulty component, and removal and replacement of the faulty item and/or piece parts followed by operational testing to verify successful corrective action(s).

**b. Intermediate.** In addition to providing services within the intermediate level, the AVGFE technician provides support to tenant squadrons having an insufficient demand to maintain their own AVGFE. IMAs maintain custody and perform scheduled and unscheduled maintenance on the PGM-50 and Gastech Model 1314. No corrective maintenance is being performed on the Gastech 1314 during the phase-out process.

**c. Depot.** A Gas Free Engineering Program is established per the Aircraft Fuel Cell Manual, NAVAIR 01-1A-35.

**d. Interim Maintenance.** Naval Air Technical Data and Engineering Service Command (NATEC) personnel provide technical assistance and On-the-Job Training for familiarization as required to organizational and intermediate level personnel.

**e. Life-Cycle Maintenance Plan.** NA

**3. Manning Concept.** There are no specific Navy Enlisted Classifications or Military Occupational Specialties associated with the AVGFE Program. No additional manning is required at fleet or fleet support activities with the introduction of the PGM-50.

**4. Training Concept.** The overall objective of the AVGFE training program is to ensure the proper quantity and quality of personnel are available, with the necessary skills and knowledge to ensure the safety of personnel required to work in and around fuel cells and tanks of aircraft and associated support equipment.

**a. Initial Training.** The PGM-50 initial training was conducted by MultiRAE Systems, Incorporated, in Sunnyvale, California, and was completed in July 1998. Training consisted of sixteen hours of classroom and hands-on instruction for personnel from the following activities:

- Naval Air Maintenance Training Group Detachment (NAMTRAGRU DET) Maintenance Training Units (MTU) 1007, 1036, 1037, 1038, 1083
- NATEC
- Commander, Naval Air Force U.S. Pacific Fleet (COMNAVAIRPAC)
- Commander, Naval Air Force U.S. Atlantic Fleet (COMNAVAIRLANT)
- Commander, Naval Air Reserve Force (COMNAVARESFOR)

**b. Follow-on Training.** Training of AVGFE technicians is provided under existing Naval Air Maintenance Training Group (NAMTRAGRU) Course C-600-3000.

<b>Title .....</b>	<b>Aviation Gas Free Engineering</b>
<b>CIN .....</b>	C-600-3000
<b>Model Manager ...</b>	MTU 1007 NAMTRAGRU DET Naval Air Station (NAS) Oceana, Virginia
<b>Description .....</b>	This course covers the following topics: <ul style="list-style-type: none"> <li>◦ Introduction to the Gas Free Engineering Program</li> <li>◦ Aviation Gas Free Engineering Technician Training and Responsibilities</li> <li>◦ Classification of Spaces and Aircraft Fuel Cell/Tank Maintenance</li> <li>◦ Instruments and Calibration Procedures</li> </ul>
<b>Locations .....</b>	MTU 1083, NAMTRAGRU DET NAS Whidbey Island, Washington MTU 1007, NAMTRAGRU DET NAS Oceana, Virginia MTU 1008, NAMTRAGRU DET NAS North Island, California MTU 1037, NAMTRAGRU DET NAS Jacksonville, Florida MTU 1038, NAMTRAGRU DET NAS Lemoore, California
<b>Length .....</b>	3 days
<b>RFT date .....</b>	Currently available
<b>Skill identifier .....</b>	NA
<b>TTE/TD .....</b>	See Part IV.A.1 for TTE. TD is NA.
<b>Prerequisites .....</b>	Designated QAR, CDQAR, or personnel assigned to the QA work center under QAR training.

**c. Student Profiles.** NA

**d. Training Pipelines.** NA

## **I. ON-BOARD (IN-SERVICE) TRAINING.** NA

**1. Proficiency or Other Training Organic to the New Development.** NATEC representatives will provide proficiency training for AVGFE technicians at the organizational and intermediate levels of maintenance.

**a. Maintenance Training Improvement Program.** NA

**b. Aviation Maintenance In-Service Training. NA**

**2. Personnel Qualification Standards. NA**

**3. Other On-Board or In-Service Training Packages. NA**

**J. LOGISTICS SUPPORT**

**1. Manufacturer and Contract Numbers.** The contract information listed below is for the purchase of PGM-50s.

CONTRACT NUMBER	MANUFACTURER	ADDRESS
N68335-98-D-0156	MultiRAE Systems Inc.	RAE Systems Inc. 680 West Maude Ave. # 1 Sunnyvale, CA 94086

**2. Program Documentation.** The current User's Logistics Support Summary (ULSS) for the PGM-50 is NAWCADLKE-U70097044, dated 16 March 1998 (revision).

**3. Technical Data Plan.** The instruction manual for the PGM-50, 008-4001 Rev C Diagnostic and Service Manual, is currently in place and replaced the Gastech Model 1314 LEL/PPM Gas Indicator Instruction Manual. The NAVAIR 17-15-520 Multi-Gas Monitor PGM-50 Operation and Maintenance Manual will replace the 008-4001 Diagnostic and Service Manual at a time yet to be determined. Refer to IV.B.3 for a listing of Technical Manuals required at the training sites.

**4. Test Sets, Tools, and Test Equipment.** Tools and Test Equipment for the AVGFE Program training includes actual equipment. Refer to IV.A.1 for tools and test equipment required at the training sites.

**5. Repair Parts.** Repair parts for the PGM-50 may be obtained from the Naval Inventory Control Point, Philadelphia, Pennsylvania, through normal supply channels.

**6. Human Systems Integration. NA**

**K. SCHEDULES**

**1. Installation and Delivery Schedules.** Delivery of the PGM-50 began in June 1998 at a rate of 50 units per month to the activities listed in the table below. Delivery of the PGM-50 was completed in November 1998 for a total Navy and Marine Corps inventory of 343 units.

<b>ACTIVITY</b>	<b>UIC</b>	<b>DELIVERY DATE</b>	<b>UNIT QUANTITY</b>
Aircraft Carrier, Nuclear (CVN)-69 United States Ship (USS) Eisenhower	03369	Jun 1998	3
Landing Ship, Helicopter Assault (LHA)-2 USS Saipan	20632	Jun 1998	3
CVN-65 USS Enterprise	03365	Jun 1998	3
Aircraft Carrier (CV)-63 USS Kitty Hawk	03363	Jun 1998	3
Multi-Purpose Amphibious Assault Ship (LHD)-2 USS Essex	21533	Jun 1998	3
CVN-72 USS Lincoln	21297	Jun 1998	3
NAS Willow Grove	00158	Jun 1998	8
Aircraft Intermediate Maintenance Department (AIMD) NAS Pensacola	00204	Jun 1998	3
HMX-1 Quantico	M00262	Jun 1998	4
MTU-1007 NAMTRAGRU DET NAS Oceana	66045	Jun 1998	3
CVN-75 USS Truman	N60138	Jun 1998	3
LHA-4 USS Nassau	20725	Jun 1998	3
CVN-71 USS Roosevelt	21247	Jun 1998	3
LHD-3 USS Kearsarge	21700	Jun 1998	3
Expanded Mission Mobile Maintenance Facility (EMMMF) One Aviano Air Base, Italy	31635	Jun 1998	2
EMMMF Two Dhahran, Saudi Arabia		Jul 1998	2
LHA-3 USS Belleau Wood	20633	Jul 1998	3
Joint Reserve Base (JRB) Forth Worth	83447	Jul 1998	3

<b>ACTIVITY</b>	<b>UIC</b>	<b>DELIVERY DATE</b>	<b>UNIT QUANTITY</b>
Marine Aviation Logistics Squadron (MALS)-49 Newburg	55555	Jul 1998	4
AIMD Corpus Christi	00216	Jul 1998	3
Naval Test Wing Atlantic Patuxent River	39782	Jul 1998	7
MTU-1038 NAMTRAGRU DET NAS Lemoore	66060	Jul 1998	3
Pre Commissioning Unit (PCU) Bonhomme Richard LHD-6	N60138	Jul 1998	3
NAWCAD Engineering Department, Lakehurst	68335	Jul 1998	1
CV-67 USS Kennedy	03367	Jul 1998	3
MCS-12 USS Inchon	20009	Jul 1998	3
LHD-5 USS Bataan	21879	Jul 1998	3
LHD-4 USS Boxer	21808	Jul 1998	3
CVN-70 USS Vinson	20993	Jul 1998	3
Helicopter Combat Support Squadron (HC)-5, Air Support Division/AIMD Yigo, Guam	09823	Jul 1998	3
Naval Air Reserves AIMD Naval Air Facility (NAF) Washington	00166	Jul 1998	1
JRB NAS New Orleans	68822	Jul 1998	3
Naval Air Reserves Santa Clara	63139	Aug 1998	3
AIMD NAS Meridian	63043	Aug 1998	4
Naval Air Weapons Station China Lake	N39787	Aug 1998	4
MTU-1036 NAMTRAGRU DET NAS North Island	66065	Aug 1998	3
LHD-7 USS Iwo Jima	N60138	Aug 1998	3
CVN-73 USS Washington	21412	Aug 1998	3

<b>ACTIVITY</b>	<b>UIC</b>	<b>DELIVERY DATE</b>	<b>UNIT QUANTITY</b>
LHD-1 USS Wasp	21560	Aug 1998	3
AIMD Naval Station (NS) Rota, Spain	62863	Aug 1998	3
Organizational Maintenance Department (OMD)/AIMD NAF Atsugi, Japan	62507	Aug 1998	4
Organizational Maintenance Activity (OMA)/AIMD NAF Misawa, Japan	68212	Aug 1998	3
Naval Support Facility Diego Garcia	68539	Aug 1998	3
AIMD NAS New Orleans	00206	Aug 1998	3
AIMD NAF Washington	00166	Aug 1998	3
Naval Air Training Management Support Activity Kingsville	Q97924	Aug 1998	3
AIMD Naval Air Weapons Station Point Mugu	N39788	Aug 1998	8
MTU-1083 NAMTRAGRU DET NAS Whidbey Island	66058	Aug 1998	3
CVN-76 USS Reagan	N60138	Sep 1998	3
AIMD NAS Sigonella, Italy	62995	Sep 1998	3
Marine Transportation Squadron One (VMGR-1) Cherry Point	00146	Sep 1998	1
Marine Corps Air Station (MCAS) Beaufort Search and Rescue (SAR) Beaufort	60169	Sep 1998	2
MALS-14 MCAS Cherry Point	09378	Sep 1998	4
MALS-36 Marine Air Wing (MAW) Okinawa, Japan	09136	Sep 1998	3
MALS-12 MAW Iwakuni, Japan	09112	Sep 1998	4
NAS Atlanta	00196	Sep 1998	2



<b>ACTIVITY</b>	<b>UIC</b>	<b>DELIVERY DATE</b>	<b>UNIT QUANTITY</b>
NAS JRB New Orleans	00206	Sep 1998	1
NAS Willow Grove	00158	Sep 1998	1
Naval Air Training Management Support Activity Meridian	Q97925	Sep 1998	3
Naval Surface Warfare Center Panama City	N61331	Sep 1998	1
Support Equipment Rework Facility Atsugi, Japan	N46852	Sep 1998	1
Naval Aviation Depot (NAVAVNDEPOT) Cherry Point	N65923	Sep 1998	4
MTU-1012 NAMTRAGRU DET NAS Whidbey Island	66058	Sep 1998	3
PCU CVN-77 Williamsburg	N60138	Sep 1998	3
MALS-14 MCAS Cherry Point	09378	Sep 1998	5
MALS-31 MCAS Beaufort	09384	Sep 1998	4
MALS-13 MCAS Yuma	57082	Sep 1998	4
OMD/AIMD NAS Fallon	60495	Oct 1998	5
MALS-11 MAW San Diego	09111	Oct 1998	4
AIMD NAS Atlanta	00196	Oct 1998	3
MALS-41 Fort Worth	83447	Oct 1998	4
NAVAVNDEPOT Jacksonville	N65886	Oct 1998	6
MALS-26 MCAS New River North	09506	Oct 1998	3
MALS-26 TTSA26 MCAS New River	09506K	Oct 1998	3
MALS-29 MCAS New River	52844	Oct 1998	3
AIMD/OMD NAS Lemoore	63042	Oct 1998	5

<b>ACTIVITY</b>	<b>UIC</b>	<b>DELIVERY DATE</b>	<b>UNIT QUANTITY</b>
MALS-16 MAW Tustin	09116	Oct 1998	3
AIMD NAS North Island	00246	Oct 1998	5
Fixed Wing Marine Fighter Training Squadron (VMAT)-401 MCAS Yuma	01854	Oct 1998	1
MALS-49 Marine Logistics Support Package Newburg	55555	Oct 1998	3
Mobile Maintenance Facility NAS Santa Clara	68782	Oct 1998	3
MALS-29 Marine Aircraft Group (MAG-29) MCAS New River	52844K	Oct 1998	3
AIMD NAS Norfolk	00188	Oct 1998	4
AIMD NAS Norfolk	00188B	Nov 1998	1
MALS-39 MAW Camp Pendleton	09808	Nov 1998	3
Strategic Communication Wing One Tinker Air Force Base	55575	Nov 1998	2
AIMD NAS Whidbey Island	00620	Nov 1998	3
AIMD NAS Jacksonville	00207	Nov 1998	4
AIMD NAS Key West	00213	Nov 1998	2
Submarine Logistics Center Norfolk	00306	Nov 1998	2
CV-64 USS Constellation	03364	Nov 1998	3
Pacific Missile Range Facility Barking Sands Kekahu Kahu	0534A	Nov 1998	3
LHA-5 USS Peleliu	20748	Nov 1998	3
Fleet Air Reconnaissance Squadron Three (VQ-3) Det Travis Air Force Base (AFB)	47294	Nov 1998	1

<b>ACTIVITY</b>	<b>UIC</b>	<b>DELIVERY DATE</b>	<b>UNIT QUANTITY</b>
NS Roosevelt Roads, Puerto Rico	00389	Nov 1998	4
AIMD NAS Corpus Christi.	30244	Nov 1998	3
AIMD NAS Brunswick	60087	Nov 1998	3
Strategic Communication Wing One Tinker Air Force Base	55575	Nov 1998	1
MCAS Iwakuni, Japan	62613	Nov 1998	2
MCAS Futenma, Japan	63026	Nov 1998	1
MALS-11 TTSA11 NAS Miramar	09111	Nov 1998	3
MALS-39, MAW-39 Camp Pendleton	09808	Nov 1998	3
AIMD NAS Oceana	60191	Nov 1998	7
AIMD NS Mayport	60201	Nov 1998	3
AIMD NAS Keflavik, Iceland	63032	Nov 1998	3
Station Operations Maintenance Squadron El Toro Fixed Wing Marine Reconnaissance Squadron (VMR-2)	60050	Nov 1998	3
SAR MCAS Yuma	62974	Nov 1998	3
USS Tarawa LHA-1	20550	Nov 1998	3
CVN-74 USS Stennis	21847	Nov 1998	3
CVN-68 USS Nimitz	03368	Nov 1998	3

**2. Ready For Operational Use Schedule.** The PGM-50 was ready for operational use upon receipt of the unit.

**3. Time Required to Install at Operational Sites.** NA

**4. Foreign Military Sales and Other Source Delivery Schedule.** NA

**5. Training Device and Technical Training Equipment Delivery Schedule. NA**

**L. GOVERNMENT FURNISHED EQUIPMENT AND CONTRACTOR FURNISHED EQUIPMENT TRAINING REQUIREMENTS. NA**

**M. RELATED NTSPs AND OTHER APPLICABLE DOCUMENTS**

<b>DOCUMENT OR NTSP TITLE</b>	<b>DOCUMENT OR NTSP NUMBER</b>	<b>PDA CODE</b>	<b>STATUS</b>
Gastech Model 1314 PPM/LEL Gas Indicator Operational Logistics Support Plan (OLSP)	OLSP-PSE: AW: 202	AIR-41721D	Approved Jul 86
PGM-50 Navy Wing Tank Entry Gas Monitor Set ULSS	U70097044	NAWCADLKE-3.1.4.4.GW	Approved Mar 98

## **PART II - BILLET AND PERSONNEL REQUIREMENTS**

The following elements are not affected by the AVGFE Program and, therefore, are not included in Part II of this NTSP:

### **II.A. Billet Requirements**

II.A.1.c. Total Billets Required for Operational and Fleet Support Activities

II.A.2.a. Operational and Fleet Support Activity Deactivation Schedule

II.A.2.b. Billets to be Deleted in Operational and Fleet Support Activities

II.A.2.c. Total Billets to be Deleted in Operational and Fleet Support Activities

II.A.5. Annual Incremental and Cumulative Billets

### **II.B. Personnel Requirements**

II.B.1. Annual Training Input Requirements

## PART II - BILLET AND PERSONNEL REQUIREMENTS

### II.A. BILLET REQUIREMENTS

#### II.A.1.a. OPERATIONAL AND FLEET SUPPORT ACTIVITY ACTIVATION SCHEDULE

SOURCE:

DATE:

ACTIVITY, UIC	PFYs	CFY99	FY00	FY01	FY02	FY03
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**Note:** All aviation USN and USMC activities are required to have Aviation Gas Free Engineering Support. The activities are too numerous to list here.

#### II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS		DESIG/ RATING	PNEC / SNEC PMOS / SMOS
	OFF	ENL		

**Note:** Manpower for Aviation Gas Free Engineering is drawn from USN and USMC aviation activities. A minimum of one qualified AVGFE representative from each USN and USMC aviation activity is required.

### II.A.3. TRAINING ACTIVITIES INSTRUCTOR AND SUPPORT BILLET REQUIREMENTS

DESIG/ RATING	PNEC/SNEC PMOS/SMOS	PFYs		CFY99		FY00		FY01		FY02		FY03	
		OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL

TRAINING ACTIVITY, LOCATION, UIC: MTU 1038 NAMTRAGRU DET, NAS Lemoore, 66060

#### INSTRUCTOR BILLETS

ACDU													
ADI		0	1	0	1	0	1	0	1	0	1	0	1
AMS1		0	1	0	1	0	1	0	1	0	1	0	1
TOTAL		0	2	0	2	0	2	0	2	0	2	0	2

DESIG/ RATING	PNEC/SNEC PMOS/SMOS	PFYs		CFY99		FY00		FY01		FY02		FY03	
		OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL

TRAINING ACTIVITY, LOCATION, UIC: MTU 1037 NAMTRAGRU DET, NAS Jacksonville, 66051

#### INSTRUCTOR BILLETS

ACDU													
ADI		0	1	0	1	0	1	0	1	0	1	0	1
AMS1		0	1	0	1	0	1	0	1	0	1	0	1
TOTAL		0	2	0	2	0	2	0	2	0	2	0	2

DESIG/ RATING	PNEC/SNEC PMOS/SMOS	PFYs		CFY99		FY00		FY01		FY02		FY03	
		OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL

TRAINING ACTIVITY, LOCATION, UIC: MTU 1036 NAMTRAGRU DET, NAS North Island, 66065

#### INSTRUCTOR BILLETS

ACDU													
ADI		0	1	0	1	0	1	0	1	0	1	0	1
AMS1		0	1	0	1	0	1	0	1	0	1	0	1
TOTAL		0	2	0	2	0	2	0	2	0	2	0	2



## II.A.3. TRAINING ACTIVITIES INSTRUCTOR AND SUPPORT BILLET REQUIREMENTS

DESIG/ RATING	PNEC/SNEC PMOS/SMOS	PFYs		CFY99		FY00		FY01		FY02		FY03	
		OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL

TRAINING ACTIVITY, LOCATION, UIC: MTU 1083 NAMTRAGRU DET, NAS Whidbey Island, 66058

### INSTRUCTOR BILLETS

ACDU													
ADI		0	1	0	1	0	1	0	1	0	1	0	1
AMS1		0	1	0	1	0	1	0	1	0	1	0	1
<b>TOTAL</b>		0	2	0	2	0	2	0	2	0	2	0	2

DESIG/ RATING	PNEC/SNEC PMOS/SMOS	PFYs		CFY99		FY00		FY01		FY02		FY03	
		OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL

TRAINING ACTIVITY, LOCATION, UIC: MTU 1007 NAMTRAGRU DET, NAS Oceana, 66045

### INSTRUCTOR BILLETS

ACDU													
ADI		0	1	0	1	0	1	0	1	0	1	0	1
AMS1		0	1	0	1	0	1	0	1	0	1	0	1
<b>TOTAL</b>		0	2	0	2	0	2	0	2	0	2	0	2

**Note:** Aviation Gas Free Engineering is taught at the five Maintenance Training Units listed below;

MTU 1038 NAMTRAGRU DET NAS Lemoore  
 MTU 1037 NAMTRAGRU DET NAS Jacksonville  
 MTU 1036 NAMTRAGRU DET NAS North Island  
 MTU 1083 NAMTRAGRU DET NAS Whidbey Island  
 MTU 1007 NAMTRAGRU DET NAS Oceana

There are no NECs or MOSs associated with Aviation Gas Free Engineering. The MTUs listed above have sufficient onboard instructors to cover the Aviation Gas Free Engineering Course, C-600-3000.

#### II.A.4. CHARGEABLE STUDENT BILLET REQUIREMENTS

ACTIVITY, LOCATION, UIC	USN/ USMC	PFYs		CFY99		FY00		FY01		FY02		FY03	
		OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
MTU 1083 NAMTRAGRU DET, NAS Whidbey Island, 66058	NAVY and USMC	0	0.3	0	0.3	0	0.3	0	0.3	0	0.3	0	0.3
MTU 1038 NAMTRAGRU DET, NAS Lemoore, 66060	NAVY and USMC	0	0.3	0	0.3	0	0.3	0	0.3	0	0.3	0	0.3
MTU 1037 NAMTRAGRU DET, NAS Jacksonville, 66051	NAVY and USMC	0	0.3	0	0.3	0	0.3	0	0.3	0	0.3	0	0.3
MTU 1036 NAMTRAGRU DET, NAS North Island, 66065	NAVY and USMC	0	0.3	0	0.3	0	0.3	0	0.3	0	0.3	0	0.3
MTU 1007 NAMTRAGRU DET, NAS Oceana, 66045	NAVY and USMC	0	0.3	0	0.3	0	0.3	0	0.3	0	0.3	0	0.3
<b>SUMMARY TOTAL</b>	NAVY and USMC	0	1.5	0	1.5	0	1.5	0	1.5	0	1.5	0	1.5
<b>GRAND TOTAL</b>	NAVY and USMC	0	1.5	0	1.5	0	1.5	0	1.5	0	1.5	0	1.5

## II.B. PERSONNEL REQUIREMENTS

### II.B.1. ANNUAL TRAINING INPUT REQUIREMENTS

**CIN, COURSE TITLE:** C-600-3000 Aviation Gas Free Engineering

**COURSE LENGTH:** 0.6 Weeks

**TOUR LENGTH:** Navy: 36 Months Marine: 48 Months

**ATTRITION FACTOR:** Navy 0 % Marine: 0%

**BACKOUT FACTOR:** 0.00

TRAINING ACTIVITY	SOURCE	ACDU/TAR SELRES	CFY99 OFF ENL	FY00 OFF ENL	FY01 OFF ENL	FY02 OFF ENL	FY03 OFF ENL
MTU 1038 NAMTRAGRU DET							
	USMC/Navy	ACDU/TAR/USMC	0 32	0 32	0 32	0 32	0 32
		TOTAL:	0 32	0 32	0 32	0 32	0 32

**CIN, COURSE TITLE:** C-600-3000 Aviation Gas Free Engineering

**COURSE LENGTH:** 0.6 Weeks

**TOUR LENGTH:** Navy: 36 Months Marine: 48 Months

**ATTRITION FACTOR:** Navy 0 % Marine: 0%

**BACKOUT FACTOR:** 0.00

TRAINING ACTIVITY	SOURCE	ACDU/TAR SELRES	CFY99 OFF ENL	FY00 OFF ENL	FY01 OFF ENL	FY02 OFF ENL	FY03 OFF ENL
MTU 1007 NAMTRAGRU DET							
	USMC/Navy	ACDU/TAR/USMC	0 32	0 32	0 32	0 32	0 32
		TOTAL:	0 32	0 32	0 32	0 32	0 32

**CIN, COURSE TITLE:** C-600-3000 Aviation Gas Free Engineering

**COURSE LENGTH:** 0.6 Weeks

**TOUR LENGTH:** Navy: 36 Months Marine: 48 Months

**ATTRITION FACTOR:** Navy 0 % Marine: 0%

**BACKOUT FACTOR:** 0.00

TRAINING ACTIVITY	SOURCE	ACDU/TAR SELRES	CFY99 OFF ENL	FY00 OFF ENL	FY01 OFF ENL	FY02 OFF ENL	FY03 OFF ENL
MTU 1036 NAMTRAGRU DET							
	USMC/Navy	ACDU/TAR/USMC	0 32	0 32	0 32	0 32	0 32
		TOTAL:	0 32	0 32	0 32	0 32	0 32

**CIN, COURSE TITLE:** C-600-3000 Aviation Gas Free Engineering

**COURSE LENGTH:** 0.6 Weeks

**TOUR LENGTH:** Navy: 36 Months Marine: 48 Months

**ATTRITION FACTOR:** Navy 0 % Marine: 0%

**BACKOUT FACTOR:** 0.00

TRAINING ACTIVITY	SOURCE	ACDU/TAR SELRES	CFY99 OFF ENL	FY00 OFF ENL	FY01 OFF ENL	FY02 OFF ENL	FY03 OFF ENL
MTU 1083 NAMTRAGRU DET							
	USMC/Navy	ACDU/TAR/USMC	0 32	0 32	0 32	0 32	0 32
		TOTAL:	0 32	0 32	0 32	0 32	0 32

## II.B.1. ANNUAL TRAINING INPUT REQUIREMENTS

**CIN, COURSE TITLE:** C-600-3000 Aviation Gas Free Engineering

**COURSE LENGTH:** 0.6 Weeks

**TOUR LENGTH:** Navy: 36 Months Marine: 48 Months

**ATTRITION FACTOR:** Navy 0 % Marine: 0%

**BACKOUT FACTOR:** 0.00

TRAINING		ACDU/TAR	CFY99		FY00		FY01		FY02		FY03	
ACTIVITY	SOURCE	SELRES	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
MTU 1037 NAMTRAGRU DET												
	USMC/Navy	ACDU/TAR/USMC	0	32	0	32	0	32	0	32	0	32
		TOTAL:	0	32	0	32	0	32	0	32	0	32

## **PART III - TRAINING REQUIREMENTS**

The following elements are not affected by the AVGFE Program and, therefore, are not included in Part III of this NTSP:

III.A.1. Initial Training Requirements

III.A.2. Follow-on Training

III.A.2.b. Planned Courses

III.A.2.c. Unique Courses

III.A.3. Existing Training Phased Out

### III.A.2. FOLLOW-ON TRAINING

#### III.A.2.a. EXISTING COURSES

**CIN, COURSE TITLE:** C-600-3000 Aviation Gas Free Engineering  
**TRAINING ACTIVITY:** MTU 1038 NAMTRAGRU DET  
**LOCATION, UIC:** NAS Lemoore, 66060

**SOURCE:** **STUDENT CATEGORY:** ACDU-TAR-USMC

CFY99		FY00		FY01		FY02		FY03		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
	32		32		32		32		32	ATIR
	32		32		32		32		32	Output
	0.3		0.3		0.3		0.3		0.3	AOB
	0.3		0.3		0.3		0.3		0.3	Chargeable

**CIN, COURSE TITLE:** C-600-3000 Aviation Gas Free Engineering  
**TRAINING ACTIVITY:** MTU 1007 NAMTRAGRU DET  
**LOCATION, UIC:** NAS Oceana, 66045

**SOURCE:** **STUDENT CATEGORY:** ACDU-TAR-USMC

CFY99		FY00		FY01		FY02		FY03		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
	32		32		32		32		32	ATIR
	32		32		32		32		32	Output
	0.3		0.3		0.3		0.3		0.3	AOB
	0.3		0.3		0.3		0.3		0.3	Chargeable

**CIN, COURSE TITLE:** C-600-3000 Aviation Gas Free Engineering  
**TRAINING ACTIVITY:** MTU 1036 NAMTRAGRU DET  
**LOCATION, UIC:** NAS North Island, 66045

**SOURCE:** **STUDENT CATEGORY:** ACDU-TAR-USMC

CFY99		FY00		FY01		FY02		FY03		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
	32		32		32		32		32	ATIR
	32		32		32		32		32	Output
	0.3		0.3		0.3		0.3		0.3	AOB
	0.3		0.3		0.3		0.3		0.3	Chargeable

### III.A.2.a. EXISTING COURSES

**CIN, COURSE TITLE:** C-600-3000 Aviation Gas Free Engineering

**TRAINING ACTIVITY:** MTU 1083 NAMTRAGRU DET

**LOCATION, UIC:** NAS Whidbey Island, 66058

**SOURCE:** **STUDENT CATEGORY:** ACDU-TAR-USMC

CFY99		FY00		FY01		FY02		FY03		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
	32		32		32		32		32	ATIR
	32		32		32		32		32	Output
	0.3		0.3		0.3		0.3		0.3	AOB
	0.3		0.3		0.3		0.3		0.3	Chargeable

**CIN, COURSE TITLE:** C-600-3000 Aviation Gas Free Engineering

**TRAINING ACTIVITY:** MTU 1037 NAMTRAGRU DET

**LOCATION, UIC:** NAS Jacksonville, 66051

**SOURCE:** **STUDENT CATEGORY:** ACDU-TAR-USMC

CFY99		FY00		FY01		FY02		FY03		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
	32		32		32		32		32	ATIR
	32		32		32		32		32	Output
	0.3		0.3		0.3		0.3		0.3	AOB
	0.3		0.3		0.3		0.3		0.3	Chargeable

## **PART IV - TRAINING LOGISTICS SUPPORT REQUIREMENTS**

The following elements are not affected by the AVGFE Program and, therefore, are not included in Part IV of this NTSP:

### **IV.A. Training Hardware**

#### **IV.A.2. Training Devices**

### **IV.B. Courseware Requirements**

#### **IV.B.1. Training Services**

### **IV.C. Facility Requirements**

#### **IV.C.1. Facility Requirements Summary (Space/Support) by Activity**

#### **IV.C.2. Facility Requirements Detailed by Activity and Course**

#### **IV.C.3. Facility Project Summary by Program**



## PART IV - TRAINING LOGISTICS SUPPORT REQUIREMENTS

### IV.A. TRAINING HARDWARE

#### IV.A.1. TTE / GPTE / SPTE / ST / GPETE / SPETE

CIN, COURSE TITLE: C-600-3000, Aviation Gas Free Engineering  
TRAINING ACTIVITY: MTU 1038 NAMTRAGRU DET  
LOCATION, UIC: NAS Lemoore, 66060

ITEM NUMBER	EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS	QTY REQUIRED	DATE REQUIRED	GFE CFE	STATUS
<b>SPTE</b>					
001	Indicator Set, Combination	3	Mar 88	GFE	Onboard

CIN, COURSE TITLE: C-600-3000, Aviation Gas Free Engineering  
TRAINING ACTIVITY: MTU 1037 NAMTRAGRU DET  
LOCATION, UIC: NAS Jacksonville, 66051

ITEM NUMBER	EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS	QTY REQUIRED	DATE REQUIRED	GFE CFE	STATUS
<b>GPTE</b>					
001	Indicator Set, Combination	3	Mar 88	GFE	Onboard

CIN, COURSE TITLE: C-600-3000, Aviation Gas Free Engineering  
TRAINING ACTIVITY: MTU 1083 NAMTRAGRU DET  
LOCATION, UIC: NAS Whidbey Island, 66058

ITEM NUMBER	EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS	QTY REQUIRED	DATE REQUIRED	GFE CFE	STATUS
<b>GPTE</b>					
001	Indicator Set, Combination	3	Mar 88	GFE	Onboard

#### IV.A.1. TTE / GPTE / SPTE / ST / GPETE / SPETE

**CIN, COURSE TITLE:** C-600-3000, Aviation Gas Free Engineering  
**TRAINING ACTIVITY:** MTU 1036 NAMTRAGRU DET  
**LOCATION, UIC:** NAS North Island, 66065

ITEM NUMBER	EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS	QTY REQUIRED	DATE REQUIRED	GFE CFE	STATUS
GPTE 001	Indicator Set, Combination	3	Mar 88	GFE	Onboard

**CIN, COURSE TITLE:** C-600-3000, Aviation Gas Free Engineering  
**TRAINING ACTIVITY:** MTU 1007 NAMTRAGRU DET  
**LOCATION, UIC:** NAS Oceana, 66045

ITEM NUMBER	EQUIPMENT	TYPE OR RANGE OF REPAIR PARTS	QTY REQUIRED	DATE REQUIRED	GFE CFE	STATUS
GPTE 001	Indicator Set, Combination		3	Mar 88	GFE	Onboard

#### IV.B. COURSEWARE REQUIREMENTS

##### IV.B.1. TRAINING SERVICES

COURSE/TYPE OF TRAINING	SCHOOL LOCATION, UIC	NO. OF PERSONNEL	MAN WEEKS REQUIRED	DATE BEGIN
AVGFE Initial Training	MultiRAE Systems Inc. Sunnyvale, California	15	0.4	July 98 (Completed)

**Note:** Training was provided at the manufacturer's facility to include the following organizations: COMNAVAIRPAC, COMNAVAIRLANT, COMNAVIAIRESFOR, NAMTRAGRU DET, MTUs 1007, 1036, 1037, 1038, and 1083, and NATEC personnel. No further initial training is required.

#### IV.B.2. CURRICULA MATERIALS AND TRAINING AIDS

**CIN, COURSE TITLE:** C-600-3000, Aviation Gas Free Engineering  
**TRAINING ACTIVITY:** MTU 1038 NAMTRAGRU DET  
**LOCATION, UIC:** NAS Lemoore, 66060

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
Student Guides	8	Apr 88	Onboard
Instructor Guides	8	Apr 88	Onboard
Student Evaluations	8	Mar 88	Onboard
Student Tests	8	Mar 88	Onboard

**CIN, COURSE TITLE:** C-600-3000, Aviation Gas Free Engineering  
**TRAINING ACTIVITY:** MTU 1037 NAMTRAGRU DET  
**LOCATION, UIC:** NAS Jacksonville, 66051

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
Student Guides	8	Apr 88	Onboard
Instructor Guides	8	Apr 88	Onboard
Student Evaluations	8	Mar 88	Onboard
Student Tests	8	Mar 88	Onboard

**CIN, COURSE TITLE:** C-600-3000, Aviation Gas Free Engineering  
**TRAINING ACTIVITY:** MTU 1083 NAMTRAGRU DET  
**LOCATION, UIC:** NAS Whidbey Island, 66058

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
Student Guides	8	Apr 88	Onboard
Instructor Guides	8	Apr 88	Onboard
Student Evaluations	8	Mar 88	Onboard
Student Tests	8	Mar 88	Onboard

**CIN, COURSE TITLE:** C-600-3000, Aviation Gas Free Engineering  
**TRAINING ACTIVITY:** MTU 1036 NAMTRAGRU DET  
**LOCATION, UIC:** NAS, North Island 66065

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
Student Guides	8	Apr 88	Onboard
Instructor Guides	8	Apr 88	Onboard
Student Evaluations	8	Mar 88	Onboard
Student Tests	8	Mar 88	Onboard

#### IV.B.2. CURRICULA MATERIALS AND TRAINING AIDS

**CIN, COURSE TITLE:** C-600-3000, Aviation Gas Free Engineering

**TRAINING ACTIVITY:** MTU 1007 NAMTRAGRU DET

**LOCATION, UIC:** NAS Oceana, 66045

<b>TYPES OF MATERIAL OR AID</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>STATUS</b>
Student Guides	8	Apr 88	Onboard
Instructor Guides	8	Apr 88	Onboard
Student Evaluations	8	Mar 88	Onboard
Student Tests	8	Mar 99	Onboard

#### IV.B.3. TECHNICAL MANUALS

**CIN, COURSE TITLE:** C-600-3000 Aviation Gas Free Engineering  
**TRAINING ACTIVITY:** MTU 1038 NAMTRAGRU DET  
**LOCATION, UIC:** NAS Lemoore, 66060

TECHNICAL MANUAL NUMBER, TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
Aircraft Fuel Cell Manual; NAVAIR-01-1A-35	Hard copy	1	Apr 88	Onboard
Material Safety Data Sheet; Hexane, 81-0007	Hard copy	1	Apr 88	Onboard
Material Safety Data Sheet; Hexane, 81-0083	Hard copy	1	Apr 88	Onboard
Maintenance Instructions Organizational, Intermediate, and Depot Aircraft Fuel Cells and Tanks	Hard copy	1	Apr 88	Onboard
Technical Manual, Naval Sea Systems Command Gas Free Engineering Program	Hard copy	1	Apr 88	Onboard
Naval Occupational Safety and Health (NAVOSH) Program Manual	Hard copy	1	Apr 88	Onboard
008-4001 Rev C Diagnostic and Service Instruction Manual for the PGM MultiRae Gas Detector	Hard copy	1	Apr 88	Onboard

**CIN, COURSE TITLE:** C-600-3000, Aviation Gas Free Engineering  
**TRAINING ACTIVITY:** MTU 1037 NAMTRAGRU DET  
**LOCATION, UIC:** NAS Jacksonville, 66051

TECHNICAL MANUAL NUMBER, TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
Aircraft Fuel Cell Manual; NAVAIR-01-1A-35	Hard copy	1	Apr 88	Onboard
Material Safety Data Sheet; Hexane, 81-0007	Hard copy	1	Apr 88	Onboard
Material Safety Data Sheet; Hexane, 81-0083	Hard copy	1	Apr 88	Onboard
Maintenance Instructions Organizational, Intermediate, and Depot Aircraft Fuel Cells and Tanks	Hard copy	1	Apr 88	Onboard
Technical Manual, Naval Sea Systems Command Gas Free Engineering Program	Hard copy	1	Apr 88	Onboard
Naval Occupational Safety and Health (NAVOSH) Program Manual	Hard copy	1	Apr 88	Onboard
008-4001 Rev C Diagnostic and Service Instruction Manual for the PGM MultiRae Gas Detector	Hard copy	1	Apr 88	Onboard

#### IV.B.3. TECHNICAL MANUALS

**CIN, COURSE TITLE:** C-600-3000, Aviation Gas Free Engineering  
**TRAINING ACTIVITY:** MTU 1036 NAMTRAGRU DET  
**LOCATION, UIC:** NAS North Island, 66065

TECHNICAL MANUAL NUMBER, TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
Aircraft Fuel Cell Manual; NAVAIR-01-1A-35	Hard copy	1	Apr 88	Onboard
Material Safety Data Sheet; Hexane, 81-0007	Hard copy	1	Apr 88	Onboard
Material Safety Data Sheet; Hexane, 81-0083	Hard copy	1	Apr 88	Onboard
Maintenance Instructions Organizational, Intermediate, and Depot Aircraft Fuel Cells and Tanks	Hard copy	1	Apr 88	Onboard
Technical Manual, Naval Sea Systems Command Gas Free Engineering Program	Hard copy	1	Apr 88	Onboard
Naval Occupational Safety and Health (NAVOSH) Program Manual	Hard copy	1	Apr 88	Onboard
008-4001 Rev C Diagnostic and Service Instruction Manual for the PGM MultiRae Gas Detector	Hard copy	1	Apr 88	Onboard

**CIN, COURSE TITLE:** C-600-3000, Aviation Gas Free Engineering  
**TRAINING ACTIVITY:** MTU 1083 NAMTRAGRU DET  
**LOCATION, UIC:** NAS Whidbey Island, 66058

TECHNICAL MANUAL NUMBER, TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
Aircraft Fuel Cell Manual; NAVAIR-01-1A-35	Hard copy	1	Apr 88	Onboard
Material Safety Data Sheet; Hexane, 81-0007	Hard copy	1	Apr 88	Onboard
Material Safety Data Sheet; Hexane, 81-0083	Hard copy	1	Apr 88	Onboard
Maintenance Instructions Organizational, Intermediate, and Depot Aircraft Fuel Cells and Tanks	Hard copy	1	Apr 88	Onboard
Technical Manual, Naval Sea Systems Command Gas Free Engineering Program	Hard copy	1	Apr 88	Onboard
Naval Occupational Safety and Health (NAVOSH) Program Manual	Hard copy	1	Apr 88	Onboard
008-4001 Rev C Diagnostic and Service Instruction Manual for the PGM MultiRae Gas Detector	Hard copy	1	Apr 88	Onboard

#### IV.B.3. TECHNICAL MANUALS

**CIN, COURSE TITLE:** C-600-3000, Aviation Gas Free Engineering  
**TRAINING ACTIVITY:** MTU 1007 NAMTRAGRU DET  
**LOCATION, UIC:** NAS Oceana, 66045

TECHNICAL MANUAL NUMBER, TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
Aircraft Fuel Cell Manual; NAVAIR-01-1A-35	Hard copy	1	Apr 88	Onboard
Material Safety Data Sheet; Hexane, 81-0007	Hard copy	1	Apr 88	Onboard
Material Safety Data Sheet; Hexane, 81-0083	Hard copy	1	Apr 88	Onboard
Maintenance Instructions Organizational, Intermediate, and Depot Aircraft Fuel Cells and Tanks	Hard copy	1	Apr 88	Onboard
Technical Manual, Naval Sea Systems Command Gas Free Engineering Program	Hard copy	1	Apr 88	Onboard
Naval Occupational Safety and Health (NAVOSH) Program Manual	Hard copy	1	Apr 88	Onboard
008-4001 Rev C Diagnostic and Service Instruction Manual for the PGM MultiRae Gas Detector	Hard copy	1	Apr 88	Onboard



## PART V - MPT MILESTONES

COG CODE	MPT MILESTONES	DATE	STATUS
DA	Conduct analysis of manpower, personnel, and training requirements	Jan 85	Complete
DA	Introduce Gastech Model 1314 Gas Indicator to Fleet	Oct 86	Complete
OPO	Program manpower and training resource requirements	Nov 87	Complete
OPO	Approve and promulgate NTP	Jan 88	Complete
TSA	Begin initial training	Feb 88	Complete
TSA	Deliver curricula materials	Mar 88	Complete
TSA	Deliver TTE	Mar 88	Complete
TSA	Install TTE	Mar 88	Complete
TSA	Conduct follow-on training	May 88	Complete
DA	Distribute Draft NTP	Apr 95	Complete
DA	Achieve Contract Award Date	Apr 98	Complete
DA	Achieve Material Support Date	Jun 98	Complete
DA	Achieve Navy Support Date	Jun 98	Complete
TSA	Distribute Draft NTSP	Sep 99	Pending

**PART VI - DECISION ITEMS/ACTION REQUIRED**

DECISION ITEM OR ACTION REQUIRED	COMMAND ACTION	DUE DATE	STATUS
-------------------------------------	----------------	----------	--------

**Note:** There are no decision items or actions required for the PGM-50.

## PART VII - POINTS OF CONTACT

### NAME / FUNCTION / ACTIVITY, CODE / INTERNET EMAIL

### TELEPHONE NUMBERS

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